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ABSTRACT

This guide was developed to give Kansas mathematics teachers from grades K-12 minimal sequential experiences in implementing the skills, values, and concepts of the mathematics program, and to provide a basic outline for developing a local program. All teachers are encouraged to make a real effort to see that their activities fit into the overall educational picture of the students. The guidelines are developed to provide meaning and understanding of mathematics first for all students, and then practice. Problem solving is viewed to be the necessary focus of instruction in mathematics. Objectives for mathematics are detailed by grade from K-8, and in the senior high for General Mathematics, Pre-algebra, Algebra I, Geometry, Algebra II, and Trigonometry. An appendix includes a directory of resource persons with details pertinent to their potential usefulness in various situations. (MP)

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Curriculum Guide for Basic Skills in Mathematics

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June, 1979

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How to Score Items

This Mathematics Guide has been developed to give Kansas math teachers from grades K-12 minimal sequential experiences in implementing the skills, values, and concepts of the mathematics program.

The purpose of the guide is to provide a basic outline for developing a local program.

In order to have a comprehensive sequential guide we felt this checklist would be helpful.

We suggest that these symbols be used as follows:

Skill and/or concept MASTERED

Skill and/or concept PARTIALLY MASTERED

Skill and/or concept TAUGHT, NOT MASTERED

Please see the example below which shows how one kindergarten student could be scored on page 1 of this guide. The sample shows that in 1979, this child mastered size under sorting, partially mastered shape, and was taught color but it was not mastered.

Year	Year
1979	

I. Sorting by

I.A. Size

I.B. Shape

I.C. Color

Math Committee

Serving as members of the Mathematics Advisory Committee for the development of the state math checklist booklet were math educators, elementary classroom teachers, secondary classroom teacher, administrators, and mathematitions. Individually and collectively their counsel, comments, and constructive criticism proved to be a sound basis for the development of this checklist booklet.

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To the writing team who spent many long hard hours helping develop and write this booklet goes a sincere expression of gratitude.

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Forward

We as math educators want to educate all children entrusted to our care -- including those who deviate from the norm intellectually, socially, emotionally, and physically. We believe that all children, regardless of their exceptionality, have a basic right to develop to their potential commensurate with their individual abilities. Recognition of the worth of each individual dictates the elimination of group competition. Only self-competition for the development of each student's sense of responsibility is to be encouraged.

INTRODUCTION

This guide is to encourage the study of the entire course of study. Teachers who devote their entire time and effort to one grade level or one section, may develop special skills and knowledge which make them experts in that particular area. Without exposure to concerns of other grade levels, however, they may develop "tunnel vision" which prevents teachers from seeing beyond the special problems of their own grade or level. It may result in a narrow, one-sided, inflexible view.

We encourage all teachers to make a real effort to see where their activity fits in the overall picture. This eliminates the error of mistaking one's classroom for the whole building. Many problems cut across organization lines--what seems satisfaction for their grade or department may not always be what's best for the curriculum as a whole.

There are more failures in mathematics than in any other subject in the middle grades. And mathematics is so difficult for many students in high school that it is becoming an optional rather than a required subject. Why Failures? Why so difficult? In many cases, investigation shows, the trouble started far back. Foundations were not made secure, but nobody examined them, and the inevitable occurred. There is now general acceptance of the belief that we have been attempting to teach much of our mathematics before the children were intellectually ready for it.

This guide is intended to eliminate problems flowing from the error of teaching too much, too soon. Teachers are reminded that just because some concepts appear in a text does not dictate that they be taught. It is essential that we teach well the concepts indicated for each grade.

Great amounts of drill throughout the grades, without a thorough readiness program, are dangerous and harmful. Bad habits, emotional disturbances, frustrations, and failures are prevented by a consideration of what the children know, what they need to know, and how ready they are to learn it. It has been discovered that children make faster progress and arrive at the same degree of proficiency sooner if new mathematical concepts are delayed until it is certain they are ready.

Problem-solving, the process of applying previously acquired knowledge to new and unfamiliar situations, must be the focus of instruction in mathematics. Solving word problems in texts is one form of problem-solving but students also should be faced with non-textbook problems. Problem-solving strategies involve posting questions, analyzing situations, translating results, illustrating results, drawing diagrams, and using trial and error. In solving problems, students need to be able to apply the rules of logic necessary to arrive at valid conclusions. They must be

able to determine which facts are relevant. They should be unfearful of arriving at tentative conclusions and they must be willing to subject these conclusions to scrutiny. The need of the student to deal with the personal and daily experiences of life requires a curriculum that emphasizes the selection and use of mathematical skills in unexpected, unplanned settings. All of this is possible only if understanding of concepts taught has accompanied the drill in working with the various processes.

Extended learning experiences involving concepts indicated for the student's grade level is recommended for the above average student. This horizontal learning is more beneficial than merely teaching the concepts of a grade level, then reaching up into the next grade level. Extended learning develops mathematical thinkers while introducing concepts intended for the next grade level may merely result in mathematics mechanics.

These mathematics guidelines are developed to provide for every student meaning and understanding of mathematics first--then practice. The teacher is cautioned to remember that drill comes only after understanding. In the short run, learning derived primarily from rote memorization might develop more efficiently, but that advantage dimishes with time. Emphasis should be placed upon concrete experiences in the primary grades. In the intermediate grades, increasing emphasis is placed on experiences which involve abstract thinking. Students in the junior high years should be involved in study which encourages the use of thought at the formal operational level.

Keep In Mind

A. Children learn mathematics best when they use it in everyday situations.

B. Only the child who is at ease and unafraid profits from a mathematics lesson.

C. All children are different. Mathematics, more than any other skill, must be made to fit individual abilities.

D. Begin where the children are and take them as far as they can go. Prepare a record to guide the next teacher so she/he can begin where the child is and take each one as far as he/she is able to go. This means that the responsibility for deciding how much material the children can cover rests with the teacher.

It is more important for children to master essential fundamentals than to cover many pages in the textbook and not understand the material covered. It is better that a child work four problems and understand them than to attempt ten problems and fail in all. The teacher has the responsibility for deciding how much material each child can cover.

Meaning should precede drill. Take time to develop understanding.

Problem solving must the focus of school mathematics in the 1980's. The purpose for teaching many mathematical ideas is their application in solving problems. Students must be taught many methods and strategies for solving problems, and the definition of problem-solving must be expanded to involve students in problems from diverse fields.

PRIMARY

"There are only three ways to teach a child. The first is by example. The second is by example. The third is by example."

--Albert Schweitzer

Key Piece

One Difference

color

sex

age

girth

Two Differences

color-sex

color-girth

color-age

sex-girth

sex-age

girth-age

Three Differences

color-sex-girth

color-sex-age

color-girth-age

sex-girth-age

Four Differences

color-sex-age-girth

People Pieces 9

Choose any two pieces at random and make a pair out of them.

How are they different?

How are they alike?

Make other pairs so that the pieces in each pair are alike in the same ways that those in the first pair are. If the pieces in the first pair are alike in age and sex, the pieces in all the other pairs should be alike in age and sex. The pieces in your first pair may be alike in no ways, in one way, in two ways, or in three ways. Practice making pairs until you can do it easily with any number of likenesses.

Pair all the pieces according to a rule which you have chosen. All the pieces in each pair must be alike in three, two, one, or no ways. Place one of the pieces in each pair on top of the other.

Can your partner tell, by looking at what is under one piece, what is under all the others? That is, can he discover the rule you have used for making pairs?

Play the game when there are one, two, three, and four differences between the pieces in each pair.

If all the pieces are in pairs, according to some rule, can you figure out the rule just by looking at the top pieces, without uncovering the bottom piece in one pair first?

People Pieces 10

Take all the adult People Pieces.

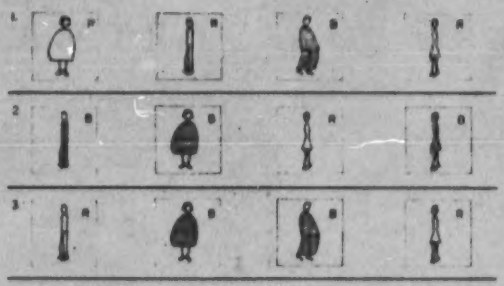
Make a pair with any two pieces.

Pair the remaining pieces so that they share the same likenesses and differences. (If your first pair differs just in color, the remaining pairs should differ in color only.)

Place one member of each pair on top of the other.

Can your partner tell what is under each one of the cover pieces before he takes any of them off?

Here are three problems involving just the adult pieces. Assuming that they have been paired *systematically*, can you tell what will be under each piece? In one of these groups there is not enough information to solve the problem.



Try this with a different subset of eight pieces. You might take all the blues or all the fat people or all the children.

Can you predict which problems can be solved and which cannot?

COMMENTARY: PEOPLE PIECES 9

Determining the bottom piece in each pair after having seen the bottom piece in one pair requires awareness of the pairing principle. When the pairs have three attributes in common, most students will be able to name the bottom pieces quite easily. The task may be harder when there are only one or two attributes in common or when there are none.

When students are thoroughly familiar with the concept of systematic pairing, they may be able to discover the rule just from looking at the top piece in each pair, without having uncovered any of the bottom pieces. There are some pairings for which this is not possible. For example, if all the red pieces are on top, any of the blue pieces might be under any of the red pieces; that is, all you know for certain about the pairing rule is that it involves a difference in color. On the other hand, if seven red pieces and one blue piece were on top, you would be able to determine the rule, because you would know that a red piece must be under the blue one, and you could determine from looking at the seven visible red pieces which one it must be. If there were six red pieces on top and two blue ones, you could not fully determine what the rule was, but you could narrow the range of possible rules to two.

COMMENTARY: PEOPLE PIECES 10

The first two problems given on Card 10 provide enough information so that it is possible to tell which piece is under each cover if you know that all the pairs share the same likenesses and differences. The first problem has two men and two women, two fat people and two thin people as covers. The key to the solution lies in realizing that one of the covers is blue while the other three are red. Reds *must* be paired with blues because if reds were paired with reds and blues with blues there would be six reds and four blues, whereas you know that in the subset of adults there are four reds and four blues. The piece under the blue cover must be red, and the only red piece that is not visible is the fat red man. Color is therefore the common difference in these pairings.

In the second problem there are three women and one man, three thin people and one fat person, and three blue people and one red person. One can focus on the piece that is different from the other three in any of these ways: the man must be paired with a woman, the fat person with a thin one, the red one with a blue piece, and for each of these pieces there is only one possible choice since the three other possible choices can be ruled out because they are cover pieces. The pairs must therefore differ in color, sex, and girth.

In the final problem there are two men and two women, two fat people and two thin people, two red people and two blue people. Since there is no odd piece, the basis for the pairings cannot be determined without removing one of the covers.

KINDERGARTEN

GOAL: Using the appropriate vocabulary, the student will begin to form a basis for mathematical concepts.

OBJECTIVE: The student will demonstrate proficiency in:

NUMERATION

I. Sorting by

- I.A. Size
- I.B. Shape
- I.C. Color

II. Rote Counting

- II.A. 0-10 Cardinal numbers
  1. Introduce writing of numberals 0-10
- II.B. Ordinal numbers 1st - 10th
- II.C. Recognizing 0-10 numerals

III. Matching

- III.A. Numerals 0-10 to sets of objects
- III.B. Size
  1. Comparison (greater than, less than); i.e., words only
  2. Sequencing; e.g., 2, 6, 3 (have students put them into correct sequence)

IV. Patterns

- IV.A. One to one
- IV.B. Series
- IV.C. Matching sets

) -- Imagining -- Memory
) (giving the student
) opportunity to mentally
) see the object or number.)

MEASUREMENT

I. Calendar

I.A. Days (recognize)

I.B. Months (recognize)

II. Temperature

II.A. Observation

II.B. Recorded (by teacher)

III. Money

III.A. Recognition

1. Penny

2. Nickel

GEOMETRY

I. Space Relationships

I.A. on

I.B. over

I.C. under

I.D. beside

I.E. below

I.F. in

I.G. middle

I.H. between

II. Recognition of shapes

II.A. square

II.B. rectangle

II.C. circle

II.D. triangle

FIRST GRADE

GOAL: Using the appropriate vocabulary, the student will refine and extend the basic concepts previously acquired with the introduction of new concepts. Underlining indicates new concepts to be introduced.

OBJECTIVE: The student will demonstrate proficiency in:

NUMERATION

I. Reading and writing numerals

I.A. Counting

1. By 1's (0-100)
2. By 2's (0-20)
3. By 5's (0-100) orally only

I.B. Recognize and read number words 0-10

I.C. Sequencing whole numbers 0-100 (e.g., 23, 45, 53, 67, 85)

I.D. Ordinals 1st-10th

I.E. Greater than (>), less than (<), equal to (=)

II. Place value

II.A. Ordering, comparing, patterning in base 10

COMPUTATION

I. Using picture problem containing 1-9 objects

II. Solving addition and subtraction sentences by using a number line

III. Addition facts with sums to 10

IV. Subtraction facts to 10

MEASUREMENTS

I. Time (recognize -- begin to write notation)

I.A. Hour

I.B. Half hour

II. Money

II.A. Penny

II.B. Nickel

II.C. Dime

II.D. Quarter

II.E. Value of individual coin; e.g., nickel = 5¢, quarter = 25¢

III. Calendar

III.A. Days (know days of week and know when they come)

III.B. Week (number of days in a week)

III.C. Months (names)

III.D. Holidays

III.E. Seasons

IV. Standard units

IV.A. Recognize units of length (no numbers)

METRIC

1. meter
2. centimeter

ENGLISH

1. yard
2. foot
3. inch

V. Temperature

V.A. Introduce Fahrenheit and Celsius (show the Fahrenheit and Celsius thermometers when talking about temperatures)

GEOMETRY

I. Recognition of

I.A. Square

I.B. Circle

I.C. Triangle

I.D. Rectangle

FRACTIONS

I. Recognize fractional parts as parts of a whole (using concrete objects)

GRAPHS

I. Picture graphs

PROBLEM SOLVING

I. One-step problems using addition and subtraction facts

APPLICATION

I. Integrate continuous application of concepts using the child's environment

SECOND GRADE

GOAL: Using the appropriate vocabulary, the student will refine and extend the basic concepts previously acquired with the introduction of new concepts. Underlining indicates new concepts to be introduced.

OBJECTIVE: The student will demonstrate proficiency in:

NUMERATION	
I. Reading and writing numerals	I.A. Counting 1. By 1's (0-100) 2. By 2's (0-20) <u>(20-50)</u> 3. By 5's (0-100) 4. <u>By 10's (0-100)</u>
	I.B. Recognize and read number words (one-ten) <u>(ten-twenty)</u>
	I.C. Sequencing whole numbers, 0-100
	I.D. Ordinals, 1st - 10th
	I.E. Greater than (>), less than (<), equal to (=)
	I.F. <u>Recognize odd and even numbers</u>
II. Place value	II.A. Ordering, comparing and patterning in base 10
	II.B. <u>Introduce ones, tens, and hundreds</u>
COMPUTATION	
I. Addition facts with sums to 10 <u>(to 18)</u>	
II. <u>Addition sentences</u>	

II.A. Two addends

II.B. Three addends

II.C. Regrouping to 10's (only when place value is understood)

III. Subtraction facts to 10 (to 18)

III.A. Without renaming (3-digit)

III.B. With renaming (2-digit)

IV. Using picture problems with 0-9 (10-18) objects (In conjunction with word problems)

V. Introduce vocabulary

V.A. Addend

V.B. Sum

V.C. Difference

V.D. Minus

V.E. Plus

MEASUREMENT

I. Time

I.A. Hour

I.B. Half hour

I.C. Quarter hour

I.D. Writing by notation

II. Money

II.A. Penny

II.B. Nickel

II.C. Dime

II.D. Quarter

II.E. Counting money

	II.F. Computing with money (2-digit)
III. Calendar	
	I.A. Days
	I.B. Weeks (number of days in a week)
	I.C. Months (recognize the names)
	I.D. Holidays
	I.E. Seasons
IV. Standard Units	
	IV.A. Recognize units of length (no calibration)
	METRIC
	1. meter
	2. centimeter
	ENGLISH
	1. yard
	2. foot
	3. inch
	IV.B. Recognize units of weight
	METRIC
	1. kilogram
	ENGLISH
	1. pound
	2. ounce
	IV.C. Recognize units of capacity (volume)
	METRIC
	1. liter
	ENGLISH
	1. cup
	2. pint

	3. quart
V. Temperature	
	V.A. Fahrenheit
	V.B. Celsius
GEOMETRY	
I. Recognition of	
	I.A. Square
	I.B. Circle
	I.C. Triangle
	I.D. Rectangle
II. Recognition of open and closed figures	
FRACTIONS	
I. Recognize (using concrete objects) and write	
	I.A. 1/2
	I.B. 1/3
	I.C. 1/4
GRAPHS	
I. Picture graphs	
II. Histograms	(on a histogram no numbers are used)
III. Bar graphs	
PROBLEM SOLVING	
I. One-step problems using addition and subtraction facts through 18	

APPLICATION

I. Integrate continuous application of concepts using the child's environment

THIRD GRADE

GOAL: Using the appropriate vocabulary, the student will refine and extend the basic concepts previously acquired with the introduction of new concepts. Underlining indicates new concepts to be introduced.

OBJECTIVE: The student will demonstrate proficiency in:

NUMERATION

I. Reading and writing numerals

I.A. Counting

1. By 1's (0-100) (100-1,000)
2. By 2's (0-50) (50-1,000)
3. By 3's (0-100)
4. By 5's (0-100) (100-1,000)
5. By 4's (0-100)
6. By 10's (0-100) (100-1,000)

I.B. Recognize and read number words (zero-twenty (twenty-one thousand)

I.C. Sequencing and ordering whole numbers (1-100) (100-1,000)

I.D. Ordinals (1st-10th) (10th-12th)

I.E. Greater than (>), less than (<), equal to (=)

I.F. Recognize odd and even numbers

I.G. Roman numerals through XII

II. Place value

II.A. Reading and writing 1's, 10's, 100's and 1,000's

II.B. Regrouping through 1,000 (concrete)

COMPUTATION

I. Addition

- I.A. Addition facts to 18
- I.B. Estimation
- I.C. Sums to 25 (one column)
- I.D. Add three or more 1-digit numbers
- I.E. Add two 2-digit numbers without renaming
- I.F. Add two 2-digit numbers with renaming
- I.G. Add two 3-digit numbers without renaming to 1,000
- I.H. Commutative and associative properties (informal)

II. Subtraction

- II.A. Subtraction facts to 18
- II.B. Estimation
- II.C. Zero in the subtrahend or difference
  1. Subtraction without renaming 3-digit numbers including 0
  2. Subtraction with renaming 3-digit numbers

III. Multiplication

- III.A. Times table through the four's
- III.B. Properties of zero
- III.C. Properties of one

IV. Division

- IV.A. Division through four's (with and without remainders)
- IV.B. Translating symbols (9 ÷ 3 means 3 ⟌ 9)

V. Identify Term

- V.A. Factors

V.B. Products

V.C. Sum

V.D. Total

V.E. Difference

V.F. Addend

VI. Using computational skills with picture problems (in conjunction with word problems)

MEASUREMENT

I. Time

I.A. Concepts previously taught

I.B. Minutes

II. Money

II.A. Knowledge of coins

II.B. Making change up to a dollar

II.C. Problems involving money

III. Calendar

III.A. Review

III.B. Weeks in a year

III.C. Days

III.D. Months (number of months in year)

III.E. Days in a year

IV. Recognize linear measure previously taught

V. Recognize weight measurements previously taught and add gram

VI. Recognize temperature measurement previously taught

GEOMETRY

I. Recognition of

I.A. Two dimensional

1. circle
2. triangle
3. square
4. rectangle
5. open and closed figures
6. line
7. segment
8. point
9. symmetry
10. angle

I.B. Three dimensional

1. cube
2. sphere
3. cylinder
4. cone

FRACTIONS

I. Recognize (using concrete objects) and write

I.A. 1/2

I.B. 1/3

I.C. 1/4

I.D. 1/5

I.E. 2/3

I.F. 3/4

II. Introduce vocabulary

II.A. Numerator

II.B. Denominator

GRAPHS

I. Picture graphs

II. Histograms

III. Bar graphs

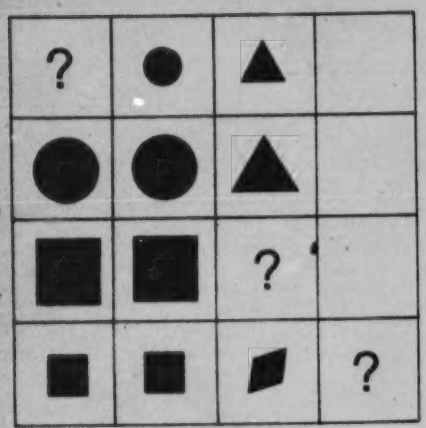
PROBLEM SOLVING

I. One-step problems using four basic operations

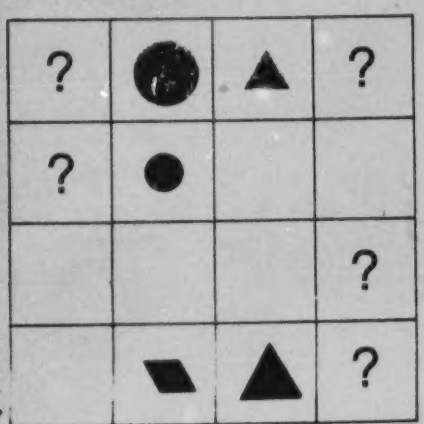
APPLICATION

I. Integrate continuous application of concepts using the child's environment

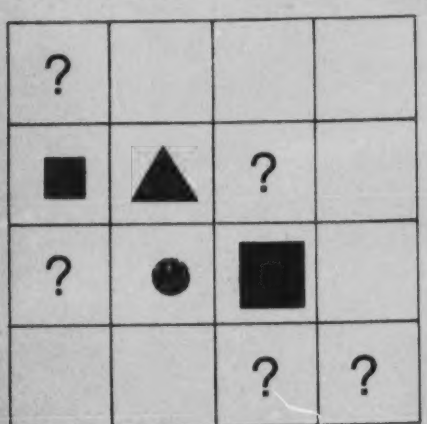
INTERMEDIATE



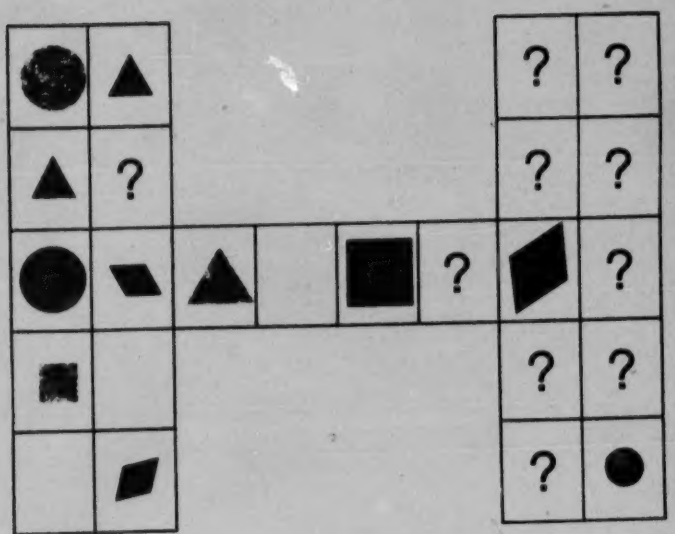
Adjacent pieces differ in one way, horizontally and vertically.



Adjacent pieces differ in two ways, horizontally and vertically.



Adjacent pieces differ in three ways, horizontally and vertically.



Three-difference "H."

"It is the supreme art of the teacher to awaken joy in creative expression and knowledge."

--Albert Einstein

FOURTH GRADE

GOAL: Using the appropriate vocabulary, the student will refine and extend the basic concepts previously acquired with the introduction of new concepts. Underlining indicates new concepts to be introduced.

OBJECTIVE: The student will demonstrate proficiency in:

NUMERATION	
I. Reading and writing numerals	
	I.A. Rounding to nearest 10's, 100's, 1,000's
	I.B. Recognizing and reading number words to 100,000,000
	I.C. Ordinals (1st-12th)
	I.D. Greater than (>), less than (<), equal to (=)
	I.E. Roman numeral (I-XII) (XIII-XXXIX)
II. Place Value	
	II.A. Reading and writing 1's, 10's, 100's, 1,000's and 10,000's
	II.B. Regrouping through 100,000
	II.C. Patterning, ordering, sequencing to 100,000
COMPUTATION	
I. Addition	
	I.A. Estimation
	I.B. Add two 3-digit numbers with regrouping
	I.C. Add three or more numbers (3-digit numbers with regrouping)
	I.D. Column addition with five or more 1-digit numbers (oral and written)

II. Subtraction

II.A. Estimation

II.B. Zero in a subtrahend and difference

1. Two or more digits with renaming

III. Multiplication (stress places of partial product)

III.A. Estimation

III.B. Products to 81

III.C. Two- and 3-digit numbers with 1-digit multipliers with or without regrouping (without zero factor)

III.D. Two- and 3-digit numbers with 2-digit multipliers with or without regrouping (without zero factor)

III.E. C and D above using zero in multiplicand and multiplier

III.F. Commutative and associative properties

IV. Division

IV.A. Estimation

IV.B. Dividends to 99 with 1-digit division, with or without remainder (without zero)

IV.C. Divide with 2-digit division, with 3-digit dividend (without zero)

MEASUREMENT

I. Time

I.A. Concepts previously taught

I.B. Seconds

I.C. Writing notation (digital and clockface)

II. Money

II.A. Making change with least number of coins, to $5.00

II.B. Computations with money, using regrouping

II.C. Use symbols in writing dollars and cents and decimal

II.D. Word problems relating to the use of numbers in everyday life, using the decimal point

III. Standard units

III.A. Measure units of volume (liter)

III.B. Measure units of length (meter, centimeter, kilometer, yard, feet, and inch)

III.C. Measure units of temperature in Fahrenheit and Celsius

III.D. Measure weight in grams and kilograms, pounds and ounces

GEOMETRY

I. Review of concepts previously taught

I.A. Perpendicular

I.B. Ray

II. Application of

II.A. Lines

II.B. Angles

II.C. Segments

II.D. Points

II.E. Symmetry

II.F. Rays

FRACTIONS

I. Recognize and write any proper fraction with 1-digit numerator and denominator

II. Recognize equivalent fractions

III. Addition and subtraction of like fractions (1-digit denominators) (The sum is less than 1)

IV. Introduce vocabulary

IV.A. Proper fraction

IV.B. Improper fraction

IV.C. Mixed number

PROBLEM SOLVING

I. Bar graphs

II. Maps (reading)

III. Charts (reading)

WORD PROBLEMS

I. One-step problems using four basic operations (allow students to develop their own word problems)

APPLICATION

I. Integrate continuous application of concepts using the child's environment

FIFTH GRADE

GOAL: Using the appropriate vocabulary, the student will refine and extend the basic concepts previously acquired with the introduction of new concepts. Underlining indicates new concepts to be introduced.

OBJECTIVE: The student will demonstrate proficiency in:

NUMERATION	
I. Reading and writing numerals	
	I.A. Rounding to nearest 100's, 1,000's, 100,000's
	I.B. Review and reading number words to 100,000,000
	I.C. Ordinals (1st-12th <u>(13th-50th)</u>
	I.D. Roman numerals (I-XXXIX) <u>(through L)</u>
II. Place value	
	II.A. Reading and writing 100's, 1,000's, 10,000's, <u>100,000's</u>
	II.B. Regrouping (0-100,000) <u>(100,000-1,000,000)</u>
	II.C. Patterning, ordering, and sequencing to 1,000,000
COMPUTATION	
I. <u>Addition of 5-digit numbers with regrouping</u>	
	I.A. <u>Commutative and associative properties</u>
II. <u>Subtraction of 5-digit numbers with renaming</u>	
	II.A. Zero in minuend
III. <u>Multiplication of 5-digit number by 2- or 3-digit multiplier (include zero) (Stress place value in partial products; correct alignment of numbers)</u>	

III.A. Estimation

III.B. Commutative and associative properties (include zero)

IV. Division

IV.A. Any dividend to four digits with divisor to two digits with and without zeros (with or without remainder)

IV.B. Zero's in the divisor (stress place value in partial quotient; i.e., correct alignment of numbers in quotient)

V. Estimation with all operations

MEASUREMENT

I. Money (computation)

II. Standard units

II.A. Review measuring linear

1. millimeter

II.B. Review measuring weight

1. metric ton

II.C. Review measuring capacity

1. milliliter

II.D. Review measuring temperature

1. freezing point
2. boiling point
3. body temperature

II.E. Review metric unit place values

1. linear - kilometer, meter, millimeter
2. capacity - liter, centiliter, milliliter
3. weight - kilogram, gram, milligram

II.F. Addition and subtraction with metric units

GEOMETRY

I. Recognition of concepts previously taught

I.A. Parallel lines

I.B. Intersecting lines

I.C. Pyramids

I.D. Perimeter of rectangles only

I.E. Congruency (process with terminology)

I.F. Perpendicular

II. Application of

I.A. Lines

I.B. Angles

I.C. Segments

I.D. Points

I.E. Symmetry

I.F. Rays

I.G. Parallel lines

I.H. Intersecting lines

FRACTIONS

I. Fractions and mixed numbers

I.A. Least common multiple

I.B. Greatest common factors

I.C. Given two fractions, find equivalent fractions, with common denominators

I.D. Fractoring out - working with prime numbers

I.E. Write fractions in simplest form

I.F. Identify proper and improper fractions

I.G. Identify mixed numbers

I.H. Add and subtract fractions with regrouping

I.I. Multiplying a whole number or a fraction by a fraction

II. Decimals

II.A. Tell the value of each digit in a 2-digit decimal

II.B. Addition of numerals with two decimal places

II.C. Subtraction of numerals with two decimal places

WORD PROBLEMS

I. One-step and two-step problems using four basic operations

I.A. Use and construct graphs and charts to gather information

I.B. Find the average of a set of whole numbers (allow students to develop their own problems)

APPLICATION

I. Integrate continuous application of concepts using the child's environments

SIXTH GRADE

GOAL: Using the appropriate vocabulary, the student will refine and extend the basic concepts previously acquired with the introduction of new concepts. Underlining indicates new concepts to be introduced.

OBJECTIVE: The student will demonstrate proficiency in:

NUMERATION	
I. Reading and writing numerals	
	I.A. Rounding to nearest 1,000,000's
	I.B. Roman numerals to M
II. Place value	
	II.A. Reading and writing 1's, 10's, 100's, 1,000's, 10,000's, 100,000's and 1,000,000's
	II.B. Regrouping to millions
	II.C. As powers of ten
COMPUTATION	
I. Addition	
	I.A. To millions with regrouping
	I.B. Commutative and associative properties
II. Subtraction	
	II.A. To millions with renaming
	II.B. Two zeros in the minuend
III. Positive and negative numbers (number line)	
IV. Multiplication	
	IV.A. Review and practice facts
	IV.B. Five-placed multiplicand

IV.C. Two- or three-place multiplier

IV.D. Two zeros in multiplicand (200 X 20)

IV.E. One zero in the multiplier (266 X 30 or 266 X 204)

IV.F. Introduce basic concepts of powers and exponents (10^3)

IV.G. Associative and commutative properties

V. Division

V.A. Review and practice 4-digit dividends and 2-digit divisors

V.B. Zeros in the quotients

V.C. Zeros in dividend

V.D. Zeros in divisor (stress quotient placement alignment)

VI. Estimation with all operations

MEASUREMENT

I. Standard units of measure

I.A. Review previous units

I.B. Introduce measure of area

METRIC

1. square meter
2. square centimeter

ENGLISH

1. square yard
2. square foot
3. square inch

I.C. Weight

1. metric ton

I.D. Conversion within metric system

GEOMETRY

I. Review of concepts previously taught

II. Application of

II.A. Measurement of segments and angles

II.B. Finding perimeters of geometric figures

II.C. Areas of rectangles (including squares)

III. Construction - use of straightedge and protractor

FRACTIONS

I. Fractions and mixed numerals

I.A. Least common multiple

I.B. Greatest common factors

I.C. Simplifying

I.D. Addition with sums of:

1. Proper

2. Mixed numerals

3. With unlike denominators

I.E. Subtractions

1. Proper

2. Mixed numerals, including renaming, with unlike denominators

I.F. Multiplication

1. Whole number by fraction, or fraction by a fraction

2. Mixed numerals

I.G. Division (multiplying by the reciprocal of the divisor)

1. Whole numbers by a fraction, or fraction by a fraction

2. Mixed numerals

I.H. Expressing simple fractions as decimals

II. Decimals

II.A. Add, subtract, multiply any combination of decimals up to four places

II.B. Divide three-place decimals by a whole number with no reminader

II.C. Introduce divisors with decimals

II.D. Express decimals as fractions

III. Percentages

III.A. Express fractions and decimals as percents

III.B. Express percents as fractions and decimals

III.C. Word problems using percent and percentage

IV. Ratio and proportion

IV.A. Operations

1. Equivalent ratio

2. Ratio to compare two numbers

PROBLEM SOLVING

I. Charts and graphs (read and construct)

I.A. Use number pairs (ordered pairs and coordinates)

I.B. Introduce data application

WORD PROBLEMS

I. One- and two-step problems using all operations

APPLICATION

I. Integrate continuous application of concepts using the child's environment; i.e., data application

JUNIOR HIGH

"Everyone is a genius at least once a year; a real genius has original ideas closer together."

-- G.C. Lichtenberg

Designer: Tony Cotton

SEVENTH GRADE

GOAL: Using the appropriate vocabulary, the student will refine and extend the basic concepts previously acquired with the introduction of new concepts. Underlining indicates new concepts to be introduced.

OBJECTIVE: The student will demonstrate proficiency in:

NUMERATION	
I. Reading and writing of numerals	
	I.A. Rounding of any numbers (whole numbers)
	I.B. Rounding decimals to tenths, hundredths, and thousandths
II. Place value	
	II.A. Renaming any numbers (expanded and standard form)
	II.B. Expansion of powers of base 10
III. Sets	
	III.A. Definition and properties of sets
	III.B. Subsets
	III.C. Union and intersection
	III.D. Equivalent sets
	III.E. Venn diagrams
COMPUTATION	
I. Whole numbers	
	I.A. Addition
	I.B. Subtraction
	I.C. Multiplication
	I.D. Division (expressing remainders in fractions)

II. All properties: associative, commutative, distributive

III. All properties of integers

IV. Estimation with all operations

MEASUREMENT

I. Review all standard units of measure previously taught

I.A. Introduce volume

METRIC

1. cubic meter
2. cubic centimeter

ENGLISH

1. cubic foot
2. cubic inch

I.B. Comparing metric system during fractional parts

GEOMETRY

I. Geometry

I.A. Angles

1. classification
2. construction
3. estimation of size

I.B. Polygons

1. classification and construction

a. triangle

1) perimeter

2) area

b. quadrilateral

c. pentagon

d. hexagon

e. octagon

I.C. Circle

1. Introduce circumference

2. Introduce area

I.D. Construction - straightedge, protractor, and compass

1. parallels

2. triangle

a. equilateral

b. right

3. perpendicular

4. square

5. bisecting line segment

6. bisecting an angle

I.E. Introduce measure of volume, surface area of rectangular solids, including cubes

FRACTIONS AND DECIMALS

I. Add, subtract, multiply, and divide - fractions and decimals

II. Ratio and proportion

III. Use ratio formula for percent

III.A. Change fractions to decimals

III.B. Change decimals to fractions

III.C. Write decimals as percent

PROBLEM SOLVING

I. Introduce data analysis

I.A. Mean

I.B. Median

I.C. Mode

II. Review of coordinate planes (working with all)

III. Reading circle graph

WORD PROBLEMS

I. Problem solving

I.A. Solve word problems (two-step)

I.B. Introduction of equations

1. With variables

APPLICATION

I. Integrate continuous application of concepts using the child's environment

EIGHTH GRADE

GOAL: Using the vocabulary developed in the previous grades, the student will apply developed concepts and skills to the idea that mathematics is a unifying system.

OBJECTIVE: The student will demonstrate proficiency in:

NUMERATION	
I. Reading and writing numerals	I.A. Rounding of decimals I.B. Estimation
II. Place value	II.A. Renaming any numbers
III. Review sets	III.A. Complementary sets
IV. Practical applications*	IV.A. Simple budgeting IV.B. Estimating sums of multiple purchase IV.C. Profit and loss
COMPUTATION	
I. Review of computation of whole numbers using four basic operations	
II. Computation of integers using the four basic operations	
III. Systems of numbers;e.g., whole numbers, rationals, etc.	
IV. Calculator literacy	

*Double underlining means practical application in everyday life.

V. Review distributive property

IV.A. Use of calculators, solving problems, involving all basic operations

MEASUREMENT

I. Review of standard units of measure

II. Practical application*

II.A. Wages

II.B. Change from purchase

II.C. Cost per unit (comparison of prices)

II.D. Figuring commission

GEOMETRY

I. Determination of area and volume of any geometric figure

II. Surface area of solids

III. Review construction of polygons

IV. Practical application*

IV.A. Figure area of rectangular surface and figure cost per unit

FRACTIONS

I. Review of adding, subtracting, multiplying, and dividing of fractions and decimals

II. Ratio and proportion

III. Percentage

III.A. Application of ratio form for percent

III.B. Finding interest

IV. Practical application*

IV.A. Take-home pay

IV.B. Figure sales tax

IV.C. Figure simple interest

IV.D. Figure discount, net price

PROBLEM SOLVING

I. Square roots by approximation (using table)

II. Application of data analysis

III. Review of coordinate planes

III.A. Graphing positive and negative numbers (four quadrants)

WORD PROBLEMS

I. Solving simple equation and inequalities, using one unknown

II. Distributive properties with variables

III. Being able to work word problems

IV. Calculators (add, subtract, multiply, divide, square root)

V. Practical application*

V.A. Rate X Time = Distance

V.B. Balancing checkbook

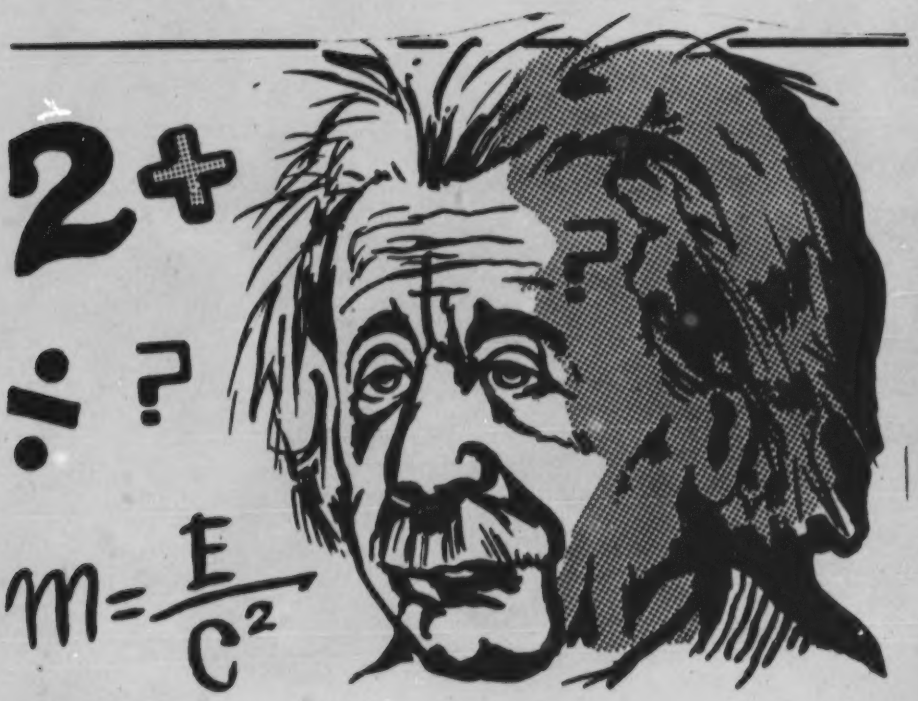
V.C. Interest X Rate X Time

V.D. Installment buying

APPLICATION

I. Integrate continuous application of concepts using the child's environment, i.e., data application

SENIOR HIGH



"How often I saw where I should be going only be setting out for something else."

HIGHER GRADES

OBJECTIVE: Using the vocabulary developed in the previous grades, the student will be able to apply previously developed concepts and skills to the idea mathematics is a unifying system in algebra, general mathematics, etc.

NUMERATION

I. Reading and writing numerals

I.A. Rounding to 10's, 100's, and 1000's

I.B. Estimating

II. Place value

II.A. Review base 10 numeration

COMPUTATION

I. Review the four basic operations in:

I.A. Whole numbers

I.B. Fractions

I.C. Decimals

II. Estimation

II.A. Whole numbers

II.B. Decimals

II.C. Fractions

III. Find mode, median, and mean

MEASUREMENT

I. Measure weights (metric, English)

I.A. Ounces

I.B. Pounds

I.C. Grams

I.D. Milligrams

I.E. Kilograms

GEOMETRY

I. Identify

I.A. Points

I.B. Line

I.C. Line segment

I.D. Kinds of lines

I.E. Kinds of angles

II. Find areas of:

II.A. Circle

II.B. Square

II.C. Rectangle

II.D. Parallelogram

II.E. Triangle

III. Find volume, metric, English

III.A. Cubes

III.B. Rectangular prisms

III.C. Cylinders

IV. Use volume to determine capacity

IV.A. Cups

IV.B. Pints

IV.C. Quarts

IV.D. Gallon

IV.E. Milliliters

IV.F. Liters

IV.G. Kiloliters

FRACTIONS

I. Ratio and proportion

I.A. Writing numerical from pictorial representation

I.B. Simplify to lowest terms

I.C. Compare ratios

I.D. Write and solve proportions

I.E. Problem solving involving proportions

II. Percentage

II.A. Application of $\frac{\%}{100} = \frac{\#=\%}{\text{number}}$

II.B. Estimating percentages

II.C. Finding percent of change (money)

II.D. Finding a percent of a number

II.E. Writing percents as decimals and vice versa

II.F. Writing fractions as percents and vice versa

GRAPHS

I. Charts and graphs

I.A. Bar graphs

I.B. Circle graphs

I.C. Line graphs

PROBLEM SOLVING

I. Practical Applications

I.A. Make change

I.B. Figure payroll

I.C. Interpret paycheck stub

I.D. Make out bills

I.E. Figure monthly payments

I.F. Make out deposit slips

I.G. Use checking account

I.H. Income tax 1040A form

I.I. Make a budget

I.J. Compare prices

I.K. Compute sales tax

I.L. Compute property tax

I.M. Compute simple interest

I.N. Compute compound interest

I.O. Compute quarterly interest

I.P. Find commission

PRE-ALGEBRA

(For the accelerated eighth grader)

COMPUTATION

I. Positive integers

II. Negative integers

III. Fractions

IV. Decimals

V. Percents

LANGUAGE OF ALGEBRA

I. Convert symbols into words

II. Convert words into symbols

III. Know basic field axioms and axioms of equality

IV. Utilization of associative, commutative, distributive properties
  Property of 0 - property of 1
  Axioms of equality
  Additive and multiplicative inverse

V. Simplify numerical and variable expression using operations of real numbers and order of operations

VI. Expression and equations

APPLICATION OF SET THEORY

EQUATIONS

I. Solve linear equations using one or more transformations

INEQUALITIES

I. Identify equalities and inequalities

II. Transform and find solution sets

III. Know and apply axioms of order and multiplication axioms of order

FACTORING

I. Integers

II. Introduce polynomials

II.A. monomial--e.g., X; 3

II.B. binomial--e.g., a+b, 7+3

POLYNOMIALS

I. Addition and subtraction

II. Powers of monomials

III. Multiplying binomials by binomial

IV. Powers of binomials

GRAPHING

I. Review of coordinate planes

II. Review of number lines

PROGRESSION OF SERIES

I. Define

II. Use of arithmetic and geometric progressions and series in life situations

LANGUAGE OF ALGEBRA

I. Convert words into symbols

II. Convert symbols into words

III. Know basic field axioms and axioms form structure of algebra

IV. Relate to fact that basic axioms form structure of algebra

V. Simplify numerical and variable expression using order of operation and operations of realness

APPLICATION OF SET THEORY

EQUATIONS

I. Solve linear equations and linear fractional equations, using one or more operations

II. Introduce systems of linear equations

III. Solve non-linear equations by factoring and quadratic formula

INEQUALITIES

I. Identify inequalities and equalities

II. Transform and find solution sets

III. Know and apply axioms of order and and multiplication axioms of order

IV. Solve word problems using inequalities

V. Solve combined inequalities

VI. Solve inequalities, using absolute value

FACTORING

I. Integers

II. Polynomials

III. By using difference of squares

IV. Trinomials (perfect square, etc.)

V. To reduce fractions to lowest terms

POLYNOMIALS

I. Addition and subtraction

II. Multiply trinomials by monomials

III. Powers of monomials

IV. Multiplication of binomials by binomials and trinomials

V. Powers of binomials

FUNCTIONS AND RELATIONS

I. Introductions of a function and a relation

II. Graph functions

III. Graph linear equations using slope-intercept method

IV. Find the equation of a line, given one point and slope

V. Graph linear inequalities of two variables

SQUARE ROOTS (ALGORITHM AND SIMPLIFICATION OF IRRATIONAL NUMBERS)

PRACTICAL APPLICATIONS

I. Age Problems

II. Integers

III. Areas

IV. Investment

V. Percent mixture problems

VI. Rate of work

VII. Uniform motion

VIII. Application of formulas using substitution

IX. Ratio and proportions

BASIC TERMS

I. Lines, points, planes, rays and their relationships

II. Space, betweeness, coplanar, collinear points, segment, length, midpoint

ANGLES

I. Measure - by postulate and protractor

II. Special - acute, right, obtuse, complementary, supplementary, vertical, congruent, adjacent

TRIANGLES

I. Scalene

II. Isoceles

III. Equilateral - equiangular

IV. Acute

V. Right

VI. Congruent triangles

VI.A. Four ways to prove general triangles congruent SAS, AAS, ASA, SSS

VI.B. Four ways to prove right triangles congruent HL, LL, LA, HA

PERPENDICULAR LINES IN SPACE AND IN PLANE

PARALLEL LINES

I. Corresponding angles

II. Alternate interior (exterior) angles

QUADRILATERALS AND THEIR PROPERTIES

I. Trapezoid

II. Trapezium

III. Parallelogram

IV. Rhombus

V. Rectangle

VI. Square

CIRCLES

I. Radius, diameter, chord, tangent, secant and their relationships

CONSTRUCTIONS

I. Congruent angles

II. Bisect an angle

III. Construct a line perpendicular to a line through a given point on the line

IV. Construct a line perpendicular to a line through a given point outside the line

V. Perpendicular bisector of a segment

VI. Tangent to a circle from outside point

VII. Application of the above in more complex figures

SPECIAL PROPERTIES OF TRIANGLES

I. Proportional parts in similar triangles

II. Pythagorean Theorem

III. 30-60-90 Triangle

IV. 45-45-90 Triangle

ARCS, ANGLES, AND CIRCLES

I. Measure of arcs, central angles, inscribed angles

II. Relationship of above

III. Angles formed by secants and tangents

AREA - DEVELOPMENT OF FORMULAS

I. Rectangle and Square

II. Parallelogram

III. Triangles

IV. Trapezoids

V. Regular Polygon

VI. Circle

VI.A. Sector

VI.B. Segment

VOLUME AND SURFACE AREA

I. Rectangular solids

II. Prism

II.A. Cylinder

III. Pyramid

III.A. Cone

IV. Sphere

TRIGONOMETRY

I. Define sine, cosine, tangent

II. Use these in solving triangles for practical situations

USING GEOMETRY TO DEVELOP A MATH SYSTEM

I. Know defined terms and undefined terms

II. Accept statements as postulates

III. Using definitions, postulates and previously proven theorems, prove statements relating to all the above figures

SYSTEMS OF LINEAR OPEN SENTENCES

I. Write an open sentence describing a situation

II. Graph linear equations in 1 or 2 variables

III. State slope of a line from given equation or graph

IV. Determine an equation of a line given slope and point or two points

V. Solve by linear substitution and linear combination

VI. Use two variables solving word problems

VII. Use three variables in equation solving

RATIONAL NUMBERS AND EXPRESSIONS

I. Apply laws of exponents

II. Solve fractional equations

III. Simplify complex fractions

IV. Solve word problems involving fractional equations

FACTORING

I. Factor polynomials and monomials

II. Use factoring to solve equations and inequalities

III. Apply factor theorems

RELATION AND FUNCTIONS

I. Distinquish difference between relation and function

II. Graph quadratic functions (conic functions)

III. Solve quadratic functions

EXPONENTIAL FUNCTIONS AND LOGARITHMS

I. Write numbers in scientific notation

II. Define a logarithm

III. Use logs in base 10 and other bases

IRRATIONAL NUMBERS

I. Use radicals to express roots

II. Solve quadratic equation for real roots

III. Apply the properties of radicals in simplifying radicals

IV. Solve irrational equations

V. Solve for approximations of irrational square roots

IMAGINARY NUMBERS

I. Define and show

II. Simplify imaginary numbers

III. Solve equation using imaginar numbers

IV. Put real numbers and imaginary numbers together

PERMUTATIONS AND COMBINATIONS

I. Define each

TRIGONOMETRY

VECTORS

I. Addition

II. Subtraction

TRIGNONMETRIC FUNCTIONS

I. Six functions of right triangle

II. Table of functions

III. Quadrant relationship

IV. Solving of right triangles

POLAR COORDINATES

I. Radians

II. Conversions from Polar to Rectangular Coordinates

III. Complex Numbers

FUNCTIONS OF TWO ANGLES

I. Sum of two angles

II. Difference of two angles

SOLVING OBLIQUE TRIANGLES

I. Law of Sines

II. Law of Cosines

III. Law of Tangents

INVERSE FUNCTIONS

I. Arc Functions

II. Graphs

LOGARITHMS

I. Computation of logs

II. Change in base

III. Application of logs

APPENDIX A

HUMAN RESOURCE GUIDE

72

INTRODUCTION

Kansas has a large number of competent educators in the mathematics and science fields. A number of these educators are offering their services as technical assistants to local schools that perceive need for consultative assistance. This directory includes pertinent information about these persons so that schools seeking consultative assistance concerning their mathematics and/or science programs may select those who can best serve their particular needs.

HOW TO USE THIS DIRECTORY

This directory of mathematics and science consultants has been categorized to reflect the level(s) (elementary, secondary, postsecondary, higher education) at which the consultant has indicated he/she most frequently works (Levels Index which precedes the resumés). Within the four levels, skills areas are supplied for each name and names are listed alphabetically (Subject Indexes which follow the resumés). The number opposite the name refers to the page on which the resumé appears.

The resumés have been prepared in a format suitable for computerized retrieval. The key to the determination of a consultant's skills area(s) and more specific grade levels are reflected by the descriptors in the resumé.

The code used to designate the target audience and levels (on resumé) is necessary to meet space requirements for computerization. Please see the following pages for a list of the codes and identification. The codes for both mathematics and science are listed alphabetically in a single list.

More information about the consultant's skills, education, and experience is in the abstract. The abstract also includes two names of reference. Please note, however, that the KEDDS Human Resources file (the technical assistants in mathematics and science are a part of that file) is still in the development stage. Persons are entered in the file as they apply, and time is required to contact and receive letters from references whose names are supplied by the applicant. For that reason, some of the resumés may not include references at this time.

CODE LETTERS FOR TARGET AUDIENCE

MATHEMATICS AND SCIENCE

ADM	Administrators
ADT	Adults
BILED	Bilingual Educators
CARED	Career Educators
CHEMTEA	Chemistry Teachers
COLLSTU	College Students
CUCORD	Curriculum Coordinators
EDUCSPEC	Educational Specialists
ELEM	Elementary Education
ELEMTEA	Elementary Teachers
ENVIRED	Environmental Education
GENPUB	General Public
HIED	Higher Education
HISCHSTU	High School Students
INTM	Intermediate Grades
JRCOLLSTU	Junior College Students
JRHI	Junior High Schools
KDG	Kindergarten
LOCSCHPER	Local School Personnel
MATH	Mathematics
MATHTEA	Mathematics Teachers
MIDSCH	Middle Schools
PARAPROF	Paraprofessionals
PAR	Parents

(continued on next page)

PARGRPS	Parent Groups
PARTUT	Parent Tutors
PARVOL	Parent Volunteers
PHYSICSTEA	Physics Teachers
POSTSEC	Post Secondary Education
PRESERTEA	Preservice Teachers
PRIM	Primary Grades
PRIN	Principals
PROGADM	Program Administrators
PROGDIR	Program Directors
SCHPER	School Personnel
SCI	Science
SCISTUD	Science Students
SCITEA	Science Teachers
SEC	Secondary Education
SECSTU	Secondary Students
SRHI	Senior High
TEA	Teachers
YTHLEAD	Youth Leaders

TECHNICAL ASSISTANTS

Mathematics

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RESUME

Kansas Human Resources

Resume

Kansas Human Resources

KS

Target Audience: TEA, CUCORD, MATH, KDG, ELEM, SEC, PRONEG

Person: Beamgard, Bill, 502 N. Third Street, Atwood, KS 67730 (913) 626-3020

Publications

Training Rscs: Overhead projector

Organization: Mathematics Instructor, Atwood High School, Atwood, KS 67730 (913) 626-3280, USD 318, Atwood, KS

Availability: Fee None; Expenses $23. Prefers weekends; could be available 1 or 2 weekdays, if necessary

Descriptors: Mathematics; Curriculum; Programs; Elementary School Teachers; Secondary School Teachers; Collective Negotiation

Identifiers: Kansas; USD 318, Atwood

Abstract: Presently teaches mathematics in a four year high school at Atwood. Holds Master's degree in school administration and has taken 3 different mathematics curriculum studies. Names specific areas for consultative services as mathematics curriculum and programs, K-12; and professional negotiation activities. Served as professional negotiator for district for 1 year and has been committee member for several years. References: Louis Holaday, District Superintendent and Verle McClellan, Principal, Atwood High School, USD 318, Atwood, Kansas 67330.

End of Abstract

KS

Target Audience: TEA, KDG, ELEM

Person: Benson, Sterling O., 501 W. Saline, Lindsborg, KS 67456 (913) 227-3633

Publications:

Training Recs: Room with tables; overhead projector; balance scales; metric measuring graduals (for metric workshop)

Organization: Coordinator of Elementary Education, Bethany College, Lindsborg, KS 67456 (913) 227-3312, Ext 19

Availability: Fee $100 per day; Expenses $30 per day plus 15¢ per mile. Has flexible schedule

Descriptors: Mathematics; Mathematics Education; Metric System; Workshops; Elementary School Mathematics

Identifiers: Kansas; Bethany College, Lindsborg

Abstract: Presently is coordinator of elementary education at Bethany College. Has been classroom teacher and college level math teacher. Special skills are listed as mathematics education; elementary school mathematics; and metric workshops. Previous consulting experience includes involvement in the Nebraska Helpmobile project which focused on individualization of mathematics in the intermediate grades and holding metric workshop for teachers in the Kansas National Education Association Uniserve District 1. References: Don Anderson, Executive Director, Uniserv, 101 S. Main, Box 470, Lindsborg, KS 67456; and Dr. T. Von Fange, Bethany College, Lindsborg, KS 67456

End of Abstract

Resume

Kansas Human Resources

KS

Target Audience TEA, JRHI

Person Berens, Ronald J., 2818 25th St., Great Bend, KS 67530 (316) 793-7029

Publications

Training Rscs

Organization Department Chairman and Instructor of Mathematics, Junior High School, 2818 25th St., Great Bend, KS 67530, (316) 793-7029, USD 428, Great Bend, KS

Availability Fee optional; Expenses optional. Availability not listed; contact for times available.

Descriptors Mathematics; Mathematics Instruction; Junior High School; Learning Activities

Identifiers Kansas; USD, Great Bend

Abstract Currently is employed as a mathematics instructor and department chairman in a Great Bend junior High. Describes area of specialization for consultative assistance as the use of calculators in a junior high mathematics program. Has served as a member of evaluating team for the North Central Evaluation Association. References: Glen Erikson, Assistant Superintendent, USD 428, 2408 Jefferson, Great Bend, KS 67530; and William Vossen, Principal, Harrison Junior High School, 1919 Harrison, Great Bend, KS 67530.

End of Abstract

Resume

Kansas Human Resources

KS

Target Audience ELEMTEA, PARGRPS

Person Coltharp, Forrest L., 1402 W. Homer, Pittsburg, KS 66762 (316) 231-3515

Publications

Training Recs

Organization Professor of Mathematics, Department of Mathematics, Pittsburg State University, Pittsburg, KS 66762 (316) 231-7000, Ext 323

Availability Fee $100-200 per day; Expenses $32 per day. Available three days a week and evenings.

Descriptors Mathematics; Mathematics Education; Metric System; Elementary School Mathematics;

Identifiers Kansas; Pittsubrg State University, Pittsburg

Abstract Responsibilities as professor of mathematics at Pittsburg State University involve both preservice and inservice mathematics education at the elementary level. States areas of specialization are metric education and all facets of elementary school mathematics. Holds Ed. D. from Oklahoma State University. Has furnished consultative service for various school systems throughout Kansas, Missouri and Oklahoma as well as for commercial book companies. References: Dr. Ramona Anschutz, Mathematics and Science Programs Specialist, Kansas State Department of Education, 120 E. 10th St., Topeka, KS 66612; and Ray Kurtz, Professor, Department of Curriculum and Instruction, College of Education, Holton Hall, Kansas State University, Manhattan, KS 66506

End of Abstract

KS

Target Audience: TEA, JRCOLLSTU, POSTSEC

Person: Cuppy, Nelda K., Moran, KS 66755 (316) 237-4522

Publications

Training Recs

Organization: Mathematics Instructor, Allen County Community Junior College, 1801 N. Cottonwood, Iola, KS 66749 (316) 365-5116

Availability: Fee not listed. Expenses not listed. Limited availability throughout the school year.

Descriptors: Mathematics; Mathematics Education; Learning Activities; Post Secondary Education

Identifiers: Kansas; Allen County Community Junior College, Iola

Abstract: Currently is mathematics instructor at community junior college. Professional education includes M.S. in mathematics, Pittsburg State University, Pittsburg, Kansas. Has done additional graduate work at other institutions. Specialization area is focused on mathematics education. Has organized annual math relays-contests concerning mathematical topics for community college students and which have proven quite successful. References: Dr. Terry Glenn, Vice-President and Dean of Instruction, Allen County Community Junior College, Iola, KS 66749; and Sam Newland, Community Junior College Specialist, Kansas State Department of Education, 120 E. 10th St., Topeka, KS 66612

KS

Target Audience: ELEMTEA, MATH, READ

Person: DeFries,Pam A., 1510 C Lane, Apt 116, Topeka, KS 66604 (913) 233-1442

Publications:

Training Recs:

Organization: Title I Resource Teacher, Highland Park Elementary School, 2717 Illinois, Topeka, KS 66605 (913) 232-8270; USD 501, Topeka, KS

Availability: Fee negotiable; Expenses negotiable. Contact for possible time.

Descriptors: Reading; Mathematics; Criterion Referenced Materials; Individualized Programs; Elementary Grades; Learning Laboratories; Remedial Programs; Management

Identifiers: Kansas; USD 501, Topeka; Title I; Hoffman Laboratory

Abstract: Presently is employed as a Title I elementary school resource teacher. Is in charge of remedial math and reading laboratory (Hoffman) and in direction of two full-time certified aides. Education and/or training includes Hoffman workshops master classes in individualizing of reading. Prefers consulting services assistance in the areas of organization of criterion referenced materials; organization of remedial laboratory; and individualization in mathematics and reading. References: Virgil J. Funk, Principal, Highland Park Elementary School, 2717 Illinois, Topeka, KS 66605; and Wilmer Moffett, Coordinator of Title I, 1601 Van Buren, Topeka, KS 66612.

End of Abstract

Kansas Human Resources

KS

Target Audience: ADM, TEA, PARVOL, KDG, ELEM

Person: Dorsett, Bessie M., 3510 South Handley, Wichita, KS 67217 (316) 522-3255

Publications

Training Rscs

Organization: Coordinator of Math Laboratory Aides, Murdock Teachers Center, 670 N. Edgemoor, Wichita, KS 67208 (316) 682-4598, USD 259, Wichita, KS

Availability: Fee not listed; Expenses $25 per day. Available after 4:30 weekdays during school term; workshops and inservice available Saturdays and summers.

Descriptors: Mathematics; Mathematics Instruction; Learning Laboratories; Mathematical Concepts; Volunteers; Teacher Aides; Elementary School Mathematics; Parent Participation; Reinforcement; Training

Identifiers: Kansas; USD 259, Wichita

Abstract: Present job responsibilities involve providing preservice and inservice training sessions for mathematics aides, visiting the mathematics laboratories to monitor the program and assisting the aides in implementation. Received actual training for 3 years as instructional aide and has spent four years as coordinator of math laboratory aides. Was member of a 3-person team from Murdock Center who presented workshop for the Garnett public school system. Also, has worked with parent volunteer groups in USD 259. Areas of specialization include presenting and demonstrating procedures for implementing an innovative math laboratory by utilization of activities which stress reinforcement of mathematical concepts. Also can offer techniques for obtaining volunteer parents and how to provide training sessions for instructional aides. References: Kenneth E. Young, Superintendent of Schools and Danny Harper, District Math Specialist, USD 365, Garnett, KS 66032.

End of Abstract

KS

Target Audience	TEA, PRIN, KDG, ELEM
Person	Fernkopf, Forrest D., 2521 Sunset Road, Topeka, KS 66614 (913) 272-1236
Publications	
Training Rscs	
Organization	Principal, Bishop Elementary School, 3601 S.W. 31st St., Topeka, KS 66614 (913) 272-8610, USD 501, Topeka, KS
Availability	Fee none; Expenses $50 per day. Afternoons preferred; could arrange for entire day.
Descriptors	Mathematics; Mathematics Instruction; Open Education; Elementary Grades
Identifiers	Kansas; USD 501, Topeka

Abstract

As principal of Bishop School in Topeka, is responsible for organization, coordination and supervision of elementary grade program. States areas of consulting assistance as the demonstration of a basic handwriting program, K-6, utilizing two kits of film loops; demonstration of basic math factsfilm loops; and presentation of lecture and slide-tape demonstration on open facilities and program of Bishop School. Background for consultative assistance includes demonstrations of handwriting film-loop materials for elementary faculty groups and for college classes. Has also served as a professional consultant to a publishing company. References: Dr. W. R. Oldham, Director Education Department/Graduate Division, Washburn University, Topeka, KS 66621; and Dr. Owen Henson, Associate Superintendent, Education Division, USD 501, 415 W. Eighth, Topeka, KS 66603

End of Abstract

KS

Target Audience: TEA, PHYSED, MATH, SEC

Person: Gladfelter, Robert G., 2516 Moundview, Topeka, KS 66614 (913) 272-9062

Publications:

Training Recs:

Organization: Mathematics Teacher and Tennis Coach, Topeka West High School, 2001 Fairlawn, Topeka, KS 66604 (913) 272-1643, USD 501, Topeka, KS

Availability: Fee $7.00 per hour or $75 per day; Expenses $8.00 food and 15¢ per mile. Prefers the months, December through February and June through August. Evenings Monday - Saturday

Descriptors: Mathematics; Mathematics Instruction; Secondary Grades; Physical Education; Tennis

Identifiers: Kansas; USD 501, Topeka

Abstract: Current job responsibilities include teaching mathematics and coaching tennis for men and women at the secondary level. As mathematics major, received B.A., Washburn University in 1969. Mathematical topics for consultative services are algebra, geometry and alg-trig. Coaching skills focus on the strategy and techniques of tennis. References: Roger L. Dirks, Director of Continuing Education Services, Topeka Public Schools, 1900 Hope St., Topeka, KS 66604; and Donald E. French, Assistant Principal, Topeka West High School, 2001 Fairlawn, Topeka, KS 66604.

End of Abstract

KS

Target Audience TEA, SCI, MATH, ELEM, SEC, PRESERTEA

Person James, Robert K., Westwind Street, Manhattan, KS 66502 (913) 539-5569

Publications

Training Rscs Can provide any special equipment needed

Organization Professor, Science and Environmental Education, College of Education, Holton Hall, Kansas State University 66506 (913) 532-5528

Availability Fee $100 per day; Expenses $35 per day. Generally available.

Descriptors Environmental Education; Science; Science Education; Metric System; Secondary School Science; Elementary School Science; Performance Based Education; Curriculum; Teacher Education; Workshops; Mathematics

Identifiers Kansas; Kansas State University, Manhattan

Abstract As a professor of education, position responsibilities include providing science education for K-12 schools. Bachelor's and advanced degrees were attained in the areas of science education and competency based teacher education. Describes specialization areas as curriculum design, implementation, and evaluation; implementation of competency based education; workshops and consultant activities related to change in the elementary school science curriculum and secondary level science education; and workshops/consulting assistance on the metric system. Has had consulting experience in all of the described areas. References: Louis L. Hendricks, Field Representative, Silver Burdett Book Co., R.R. 1, Wamego, KS 66547; and Leslie S. Weller, Superintendent of Schools, USD 487, Herington, KS 67449.

End of Abstract

KS

Target Audience: MATH, CARED, TLA, SRIII

Person: Jameson, Allen A., R.R.2, Box 283, Pittsburg, KS 66762 (316) 231-4275

Publications:

Training Recs:

Organization: Mathematics Teacher, Pittsburg High School, 1310 N. Broadway, Pittsburg, KS 66762 (316) 231-2400, USD 250, Pittsburg, KS

Availability: Fee $100 per day; Expenses $35 per day plus mileage. Available weekends December through May (evenings if distance is not too great).

Descriptors: Mathematics; Secondary Grades; Career Education; Practical Mathematics

Identifiers: Kansas; USD 250, Pittsburg

Abstract: Currently is a teacher of mathematics, including the traditional courses and career math, at Pittsburg High School. Special skills focus is a non-book oriented approach to teaching of math which relates to need to survive day-to-day living (includes involvement of members of the community in the process). Has provided inservice presentation (1976) for Wichita Public Schools and made presentation at the 1977 Kansas National Education Association state convention. Also has had visitors from other schools to learn about the Pittsburg Program. References: Gail Garrison, USD 250, Pittsburg, KS 66762 and David Huffman, Ass't Superintendent, Board of Education USD 250, 510 Deill, Pittsburg, KS 66762.

End of Abstract

KS

Target Audienc ADM, TEA, MATH, READ, ELEM, SEC

Person Ralph L. Johnson, 604 S. 19th, Leavenworth, KS 66048 (913) 682-5431

Publications

Training Recs

Organization Director, Special Services, USD #453, 624 Olive, Leavenworth, KS 66048 (913) 682-5971

Availability No fees; Expenses $35 - $40 per day, plus 13¢ per mile. Available as schedule allows.

Descriptors Diagnostic Teaching; Elementary Education; Mathematics; Secondary Education; Reading; Reading Diagnosis; Reading Skills; Remedial Programs

Identifiers Kansas; USD #453, Leavenworth; Project Pegasus; Title I

Abstract Presently serves USD #453 as Director of Title I programs, school health services, adult education and assists with inservice and curriculum. Special skills areas include Project Pegasus, a management system for the teaching of elementary reading skills, and Title I diagnostic/prescriptive teacher concept applied to local Title I reading and math programs. Holds an M.S. in psychology and administration and has completed additional graduate work in remedial reading, learning disabilities and curriculum. Participated in training for the Pegasus program. References: Frank Kukuk, Supt. and Dr. Truman Burton, Ass't Supt., USD #453, 624 Olive Street, Leavenworth, KS 66048

End of Abstract

KS

Target Audience: TEA, READ, MATH, READPROGADM, ELEM, SEC

Person: Keiter, Joann E., 423 Mimosa Drive, Haysville, KS 67060 (316) 522-3574

Publications:

Training Recs:

Organization: Director of Title I and Reading Specialist, USD 260, Administrative Offices, 120 E. Washington, Derby, KS 67037 (316) 788-2877

Availability: Fee $100 per day; Expenses $50 per day. Available upon request for services.

Descriptors: Elementary Grades; Remedial Mathematics; Remedial Reading; Secondary Education; Program Administration; Reading; Mathematics; Reading Programs

Identifiers: Kansas; USD 260, Derby; Title I

Abstract: Currently holds position as reading specialist and director of Title I. Received M.S., elementary education (reading) and has done postgraduate work at several Kansas universities. Previous professional experience includes teaching elementary level; reading specialist; reading consultant and director of Head Start. Consultant services are preferred in the areas of administration of reading; Title I math; and remedial reading. References: H. Bruce Quantic, Assistant Superintendent Instruction, USD 260, 120 E. Washington, Derby, KS 67037; and Richard L. Watson, Director, Reading Services Center, Wichita State University, 1847 N. Chautauqua, Wichita, KS 67214.

End of Abstract

KS

Target Audience: TEA, KDG, ELEM

Person: King, Marjorie L., 232 Willoesque, Wichita, KS 67209 (316) 943-8338

Publications:

Training Rscs:

Organization: Mathematics Consultant, Murdock Teachers Center, 670 N. Edgemoor, Wichita, KS 67208 (316) 682-4597, USD 259, Wichita, KS

Availability: Fee $12.50 per hour or $100 per day; Expenses $30 per day. Workshops: afternoon 4:30-6:30; Saturdays 9:00-4:00; Summers, advance scheduling

Descriptors: Mathematics; Mathematics Instruction; Elementary School Mathematics; Manipulative Materials; Reinforcement; Metric System; Cross Age Teaching; Group Activities; Learning Laboratories; Workshops; Consultants

Identifiers: Kansas; USD 259, Wichita

Abstract: Currently a mathematics consultant for a Wichita teachers center. Responsibilities include teacher training (concept development and reinforcement activities) and monitoring of classroom activities concerning ongoing progress of mathematics program. Has attained M.S. in educational administration. Lists areas of specialization as development of manipulative materials and of reinforcement materials; awareness workshops in metrics; crossgrade level groupings and methods for recording student progress; presentation of small group activities and center-developed techniques; and classroom organization ideas. Consulting experience includes assistance in elementary math methods, 4 Kansas colleges; assistance in developing Title I math program, Garnett Schools; workshops in Haysville and Derby; and metric workshop, Tahlequah, OK. References: Coker J. Denton, Chairman Elementary Education Department, College of Behavioral Sciences, Northeastern Oklahoma State University, Tahlequah, OK 74464; and Danny Harper, District Math Specialist, USD 365, Garnett, KS 66032

End of Abstract

KS

Target Audience: ELEMTEA, GENPUB

Person: KURTZ, Ray V., 1805 Alabama Lane, Manhattan, KS 66502 (913) 539-6082

Publications: Who Should Place College Freshmen in Mathematics? Mathematics Teacher November69; Fourth Grade Division: How Much is Retained in Grade Five? Arithmetic Teacher January73; Diagnosis of Computational Difficulties, Bulletin of The Kansas Association of Teachers of Mathematics, Spring73; In-Service Training for Professionals, Educational Considerations, Fall74 A Model Program for an Integrated Mathematics-Science Classroom, School Science and Mathematics Journal, March75; The Metric Challenge, Kansas School Board Journal, July75.

Training Rscs

Organization: Professor, Department of Curriculum and Instruction, College of Education, Holton Hall, Kansas State University, Manhattan, KS 66506 (913) 532-5931

Availability: Fee varies according to situation, $100 per day (for commercial work); Expenses actual incurred. Normally available with some advance notice.

Descriptors: Mathematics, Comparative Education; Metric System; Elementary Grades; Learning Activities

Identifiers: Kansas; Kansas State University, Manhattan

Abstract: As a professor in curriculum and instruction department instructs classes in the teaching of mathematics at the elementary and middle school levels. Attained Ed.D., University of Nebraska in 1967. Has taught primarily at the college level. Designates areas of specialization for consulting as metrics (work session or talk); hand-held calculators (work session or talk); minimal competencies in math (talk); why are our mathematics scores dropping? (talk); elementary grades education in England (talk with slides); and selection of creative students with mathematical activities (talk and work session). References: Adelyn C. Muller, Mathematics Specialist, Mathematics Resource Center, 5300 W. 86th St., Shawnee Mission, KS 66207; and Forrest L. Coltharp, Professor of Mathematics, Department of Mathematics, Pittsburg State University, Pittsburg, KS 66762

End of Abstract

KS

Target Audience: TEA, SRHI, JRHI

Person: Martinson, Donald C., 1144 N. Gordon, Wichita, KS 67203 (316) 942-7120

Publications

Training Recs

Organization: Mathematics Teacher, Wichita North High School, 1437 N. Rochester, Wichita, KS 67203 (316) 264-7351, USD 259, Wichita, KS

Availability: Fee $25 per hour or $85 per day; Expenses $25 and 15¢ per mile. Available Saturdays; Possible leave from school duties if requested far enough in advance.

Descriptors: Mathematics: Discovery Processes; Mathematics Curriculum; Secondary School Mathematics; Comparative Education

Identifiers: Kansas; USD 259, Wichita; International Teaching Fellow

Abstract: Present position is teacher of mathematics at Wichita North High School. Had served as the coordinator of the mathematics department prior to spending a year in Australia as an International Teaching Fellow. Previous consultative experiences include math consultant, pre-school institutes for Newton and Derby school systems. In school year 1977, taught Algebra I bilingually. Specializations include presentation of material on the discovery method; assistance in curriculum work; and a presentation comparing the American and Australian schools, based on time spent in Australia. References: Thomas W. Martin, Mathematics Teaching Specialist, Educational Services Building, 640 N. Emporia, Wichita, KS 67214; and Forrest L. Coltharp, Professor of Mathematics, Pittsburg State University, Pittsburg, KS 66762

End of Abstract

KS

Target Audience: TEA, ELEM

Person: Muller, Adelyn C., Lake Quivira, KS 66106, (913) 631-7882

Publications: Various Articles, Arithmetic Teacher; Brochures distributed by the Shawnee Mission school district: Award Winning Cadet Program, Student Teacher Program, and A Systems Approach for Learners in Mathematics; Adaptation of Madame Papy's Mini-Computer, Cuisenaire Reporter; Report on preparation of teachers, SMEAC/Science-Mathematics; IVT series in Mathematics used by Shawnee Mission schools.

Training Recs:

Organization: Mathematics Coordinator, 5300 86th St., Shawnee Mission, KS 66207 (913) 381-8871, USD 512, Shawnee Mission, KS

Availability: Fee $20-25 per hour or $100-150 per day; Expenses $40 per day. Can arrange work schedule with 2 or 3 weeks' advance notice.

Descriptors: Mathematics; Mathematics Curriculum; Basic Skills; Metric System; Learning; Manipulative Materials; Inservice Teacher Education; Behavior Problems; Elementary Grades; Mathematics Instruction

Identifiers: Kansas; USD 512, Shawnee Mission; Cuisenaire

Abstract: Currently is the coordinator of mathematics education for the Shawnee Mission public schools. Attained PH.D., mathematics education, from Kansas State University, 1975. Has diverse background in providing consultative assistance including services furnished at the local school and higher education undergraduate and graduate levels. Has also participated in a number of internationally based conferences. Specialized areas of consulting services would be particularly directed to elementary math teachers, and include the metric system; Piagetian theory and implementation; elementary math curriculum; teacher inservice (general methods); teaching basic skills; learning behavior problems of elementary students; and manipulative materials (especially Cuisenaire). References: Dr. Frank Hendrickson, Principal, Boevers Elementary School, 9134 E. 46th St., Tulsa, Ok 74145; and Dr. Shirley Hill, Professor, University of Missouri at Kansas City, Kansas City, Mo.

End of Abstract

KS

Target Audience: MATHTEA, SEC, GENPUB

Person: Olson, John Royd, 1440 Pine St., Hoxie, KS 67740 (913) 675-3957

Publications:

Training Rscs: Nature of presentation will determine equipment needed.

Organization: Chairman of Department of Mathematics, Hoxie High School, Hoxie, KS, 67740 (913) 675-3286, USD 412, Hoxie, KS

Availability: Fee Flexible-determined by individual situation; Expenses, full payment one-to-one basis. Available throughout year by schedule; Prefers maximum of two days block, including travel time.

Descriptors: Mathematics; Mathematics Curriculum; Secondary School Mathematics; Student Motivation; Learning Activities

Identifiers: Kansas; USD 412, Hoxie

Abstract: Currently is chairman of the department of mathematics, Hoxie High School. Holds Master's degree from the University of Kansas and has a number of hours of post Master's work. Previous consulting experience has been for the Kansas National Education Association UniServ unit at Colby on the subject of calculators; also has served as past chairman for inservice mathematics training, Northwest Kansas League. Lists areas of specialization as calculators in the classroom; programmable calculators as a low cost alternative to computer science; calculator applications; mathematics education; mathematics motivation; mathematics curriculum; the role of high school mathematics; and readings in mathematics for the high school student. References: James L. Davis, Principal, Hoxie High School, Hoxie, KS 67740; and Lou Kirby, Director, Northwest Kansas UniServ District 17, Box 449, Colby, KS 67701.

End of Abstract

KS

Target Audience: ADM, TEA, CUCORD, ELEM, MDSCH

Person: Pickering, Dennis A., R.R. 3, Box 152AA, Pittsburg, KS 66762 (316) 231-1329

Publications:

Training Recs:

Organization: Curriculum Specialist and Assistant Professor, Department of Curriculum and Instruction, Pittsburg State University, Pittsburg, KS 66762 (316) 231-7000 Ext 297

Availability: Fee open; Expenses actual incurred. Contact for scheduling.

Descriptors: Curriculum Development; Curriculum Evaluation; Mathematics; Elementary School Mathematics; Middle Schools; Time; Management; Multimedia Instruction; Needs Assessment; Open Education

Identifiers: Kansas; Pittsburg State University, Pittsburg

Abstract: Presently is assistant professor and curriculum specialist. Achieved doctorate in curriculum and administration. Professional experience at local school level includes teaching in elementary school and junior high school (mathematics) and serving as a curriculum coordinator (science). Describes specialization areas (stressing use of multi-media approach in both small and large group situations) as curriculum development and evaluation; needs assessment; elementary school mathematics; classroom interaction analysis; open education; and time management. Consulting experience includes services to several Kansas school districts as well as to schools out of state. References: W.J. Sandness, Dean School of Education, Pittsburg State University, Pittsburg, KS 66762; and John B. Barnett, Chairperson, Curriculum and Administration, Pittsburg State University, Pittsburg, KS 66762.

End of Abstract

KS

Target Audience: READTEA, MATHTEA, ELEM

Person: Riegel, Arvilla C., 204 N. Lakin St., Box 464, Lakin, KS 67860
(316) 355-6156

Publications:

Training Recs:

Organization: Primary Teacher, Elementary School, Box 26, Lakin, KS 67860
(316) 355-6191, USD 215, Lakin, KS

Availability: Fee not listed; Expenses not listed. Contact for available time

Descriptors: Reading; Mathematics; Elementary Education; Primary Grades; Reading Instruction; Mathematics Instruction

Identifiers: Kansas; USD 215, Lakin

Abstract: Has been employed for 15 years as teacher of grade 1 in Lakin Elementary School. Professional education includes a Master's degree in elementary education and completion of 6 hours toward reading specialist. States areas of specialization as reading and/or mathematics and that services would be directed to primary teachers. References: Dorrell George, District Superintendent, and Charles Ireland, Principal, Elementary School, USD #215, Lakin, KS 67860.

End of Abstract

Resume

Kansas Human Resources

KS

Target Audience: TEA, KDG, ELEM

Person: Robb, Gloria A., 521 Akron, Augusta, KS 67010 (316) 775-6166

Publications

Training Recs

Organization: Mathematics Consultant, Murdock Teachers Center, 670 N. Edgemoor, Wichita, KS 67208 (316) 682-4597, USD 259, Wichita, KS

Availability: Fee $12.50 per hour or $100 per day; Expenses $30 per day. Workshops: Afternoons 4:30-6:30; Saturdays 9:00-4:00; Summers-contact well in advance.

Descriptors: Mathematics; Manipulative Materials; Elementary School Mathematics; Reinforcement; Metric System; Cross Age Teaching; Group Activities; Workshops; Mathematics Instruction; Learning Laboratories; Consultants.

Identifiers: Kansas; USD 259, Wichita

Abstract: Responsibilities as mathematics consultant for Wichita Teachers Center include conducting inservice training for teachers and monitoring classroom activities to insure ongoing progress of the mathematics program. Has achieved Master's degrees in elementary education from Emporia State University and in administration from Wichita State University. States areas of specialization as the development of manipulative materials to stress hands-on approach to teaching of mathematics; reinforcement techniques used to stress computational skills; providing awareness workshops in metrics; assistance in designing a mathematics program for cross grade level groupings and methods for recording student progress; and presentation of small group activities and center-developed techniques. In addition to other inservice, has provided 23 preservice workshops for Title I Elementary Mathematics Program. References: Coker J. Denton, Chairman, Elementary Education Department, College of Behavioral Sciences, Northeastern Oklahoma State University, Tahlequah, OK 74464; and Danny Harper, District Math Specialist, USD 365, Garnett, KS 66032.

End of Abstract

KS

Target Audience: TEA, KDG. PRI

Person: Roeser, Betty E., 352 N. James, Haysville, KS 67060 (316) 522-5479

Publications:

Training Rscs: Overhead Projector, Screen, Materials-tagboard, folders, etc.

Organization: Title I Mathematics Consultant, Murdock Teacher Center, 670 N. Edgemoor, Wichita, KS 67201 (316) 682-4597, USD 259, Wichita, KS

Availability: Fee $12.50 per hour or $100 per day; Expenses $35 per day. Available as position with school district allows.

Descriptors: Mathematics; Elementary School Mathematics; Kindergarten; Primary Grades; Developmental Programs; Consultants; Mathematics Instruction

Identifiers: Kansas; USD 259, Wichita; Title I

Abstract: For the past 4 years has been a mathematics consultant for the Wichita public schools. Job responsibilities entail visiting primary classrooms, giving demonstration lessons and conducting inservice for teachers in Wichita. Also is mathematics consultant for primary bilingual room in Wichita. Past consultative experiences include being a lead teacher for the Wichita science program. Feels qualified to provide consultative services to teachers, K-3, in the area of developmental mathematics. References: Donald W. Hall, Assistant Superintendent, USD 480, Box 949, Liberal, KS 67901; and Donald R. George, Principal, Nelson Elementary School, USD 261, 245 N. Delos, Haysville, KS 67060.

End of Abstract

KS

Target Audience: TEA, PARVOL, ELEM

Person: Schroeder, Edgar E., 7321 N. Meridian, Wichita, KS 67147 (316) 755-1132

Publications:

Training Rscs:

Organization: Coordinator of Mathematics Education, Educational Services Building, 640 N. Emporia, Wichita, KS 67214 (316) 268-7856, USD 259, Wichita, KS

Availability: Fee $100 per day; Expenses $35 per day. Has flexible schedule.

Descriptors: Mathematics; Elementary School Mathematics; Mathematics Instruction; Metric System; Parent Participation; Volunteers; Management Systems; Learning Laboratories

Identifiers: Kansas; USD #259 Wichita

Abstract: As coordinator of mathematics education for the Wichita Public Schools, responsibilities include directing mathematics programs and activities, K-12. Holds Master's degree in mathematics and has worked with elementary teachers for the past several years. Consulting experience includes furnishing assistance to the Garnett school district in setting up a management system for their schools. Specific areas for consultative help are talks on metrics (member of Metric Speakers Bureau); management system for elementary mathematics insturction; and organizing elementary mathematics laboratories which involve parents as volunteers. References: Dr. Lawrence Bechtold, Director of Curriculum, USD 259, Educational Services Building, 640 N. Emporia, Wichita, KS 67214; and Dr. Douglas Hupp, Director of Title I, USD 259, 1847 N. Chautauqua, Wichita, KS 67214

End of Abstract

KS

Target Audience: TEA, ELEM

Person: Sorenson, Louise M., R.R. 5, Box 76, Salina, KS 67401, (316) 823-2036

Publications:

Training Recs:

Organization: Intermediate Grades Mathematics Teacher, Hawthorne Elementary School, 715 N. 9th St., Salina, KS 67401 (913) 827-1070, USD 305, Salina, KS

Availability: Fee none; Expenses none. Contact for services during summers only.

Descriptors: Mathematics; Elementary School Mathematics; Mathematics Instruction; Intermediate Grades

Identifiers: Kansas; USD 305, Salina

Abstract: Presently is employed as a mathematics teacher of students in the intermediate grades (3-6) in the Salina school system. Area of specialization is stated as any facet of elementary mathematics. Attained M.S. in elementary mathematics, Florida State University, Tallahassee, Florida. Previous consulting experience includes teaching one college course (Marymount College) in mathematics for elementary teachers. References: Eva Velharticky, Principal, Hawthorne School, 1308 Highland, KS 67401; and Sister Mary Paul, President, Marymount College, Salina, KS 67401.

End of Abstract

KS

Target Audience: TEA, READ, MATH, ELEM, ADT, POSTSEC

Person: Truby, Charlotte C., 1117 N. Walnut, Beloit, KS 67420 (913) 738-2185

Publications

Training Rscs

Organization: Primary Teacher, Beloit Elementary School, 12th and Bell, Beloit, KS 67420 (913) 738-3581; USD #273, Beloit, KS 67420

Availability: Fee $13 per hour, $80 per day; Expenses $35 per day. Available during summers and evenings and/or weekends during school year.

Descriptors: Reading; Curriculum Development; Remedial Reading; Mathematics; Remedial Mathematics; Elementary Education; Adult Education; Remedial Programs; Post Secondary Education

Identifiers: Kansas; USD #273, Beloit

Abstract: Currently works as a teacher, grade 1, on a 3-member team and has taught remedial reading, grades 1-6. Attained M.S. with specialization in reading, University of Missouri at Kansas City, and has achieved additional graduate credit. Has also had training in reading diagnosis. Indicates special skills are in the areas of planning curriculum or in remedial reading and/or mathematics programs. States services would be of value to adults or to teachers of children or adults who need assistance for remedial instruction in mathematics and reading. References: Gail Applebee, Principal, and Mrs. Dawna Gree, Co-team Teacher, Beloit Elementary School, Beloit, KS 67420.

End of Abstract

KS

Target Audience ADM, TEA, PROGDIR, ELEM

Person Zimmer, Nelson E., 216 E. 29th St., Hays, KS 67601 (913) 628-8756

Publications

Training Recs

Organization Assistant District Superintendent, Box 219, Hanston, KS 67849 (316) 623-2611, USD 228, Hanston, KS

Availability Fee $5.00 per hour or $40 per day; Expenses $20 per day. Flexible schedule.

Descriptors Mathematics; Mathematics Instruction; Educational Needs; Educational Objectives; Individualized Programs; Elementary Grades; Reading; Needs Assessment

Identifiers Kansas; USD 228, Hanston

Abstract Currently serves as principal of Hanston High School as well as assistant district superintendent. Describes areas of specialization as needs assessment-Delphi Technique; development of educational goals and objectives; individualized math; and individualized reading. Worked with the State Facilitator (Kansas) program in providing local adaptations of National Diffusion Network programs concerning individualization in reading and mathematics. Also established district-wide goals and objectives for total school system. References: James McElroy, Superintendent, USD 228, Hanston, KS 67849; and Weldon F. Zenger, Associate Professor of Education, Fort Hays State University, Hays, KS 67601.

End of Abstract

KS

Target Audience: TEA, READ, MATH, KDG, PRI

Person: Ziska, Phyllis J., Route 1, Box 115H, Basehor, KS 66007 (913) 724-1285

Publications:

Training Rscs: Table for display of materials

Organization: Primary Teacher, Basehor Elementary School, Basehor, KS 66607 (913) 724-1038, USD 458, Basehor, KS 66607

Availability: Fee not listed; Expenses not listed. Available evenings after 4:00 p.m. on schooldays and on Saturdays. School time would require a release.

Descriptors: Reading; Mathematics; Teacher Developed Materials; Kindergarten; Elementary Education Games; Teaching Techniques.

Identifiers: Kansas; USD 458, Basehor

Abstract: Currently works as a classroom teacher, grade 3, and is departmental teacher of all 3rd grade language arts. Professional education includes Master's degree with specialization in reading, Emporia State University. Would like to share many teacher-made games and ideas for reinforcing skills in mathematics and reading (has had two ideas published in instructor magazine) with teachers, K-4 levels. References: David Norris, Principal, Elementary School; and Dr. Tony Stansberry, Superintendent USD 458, Basehor, KS 66007

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